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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,969	08/01/2007	Robert Charles Sutton	1281-173PUS (F-30037US)	2719
70757	7590	11/07/2011	EXAMINER	
Christopher & Weisberg, P.A. 200 East Las Olas Boulevard Suite 2040 Fort Lauderdale, FL 33301			LEE, SI	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,969	<b>Applicant(s)</b> SUTTON ET AL.	
	<b>Examiner</b> SI LEE	<b>Art Unit</b> 3771	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08/25/11.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 5) ☒ Claim(s) 1-14 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 1-14 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 15 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. This Office Action is responsive to the amendment filed 8/25/11. As directed by the amendment: Claims 1-13 have been amended. Claim 14 is newly added. Claims 1-14 are presently pending in this application.

### ***Drawings Objections***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in claim 10, line 4, the “primary portion” and “secondary portion” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claim 10 is objected to because of the following informalities: The phrase "the primary inlet being positioned proximate the primary portion" in line 8 is suggested to be changed to --the primary inlet port being positioned proximate the primary portion--.
- Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 10, line 4, the phrase "the first volume has a primary portion and a secondary portion" is vague and indefinite because it is unclear how the applicant is defining these portions and there is no structure to differentiate between them.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

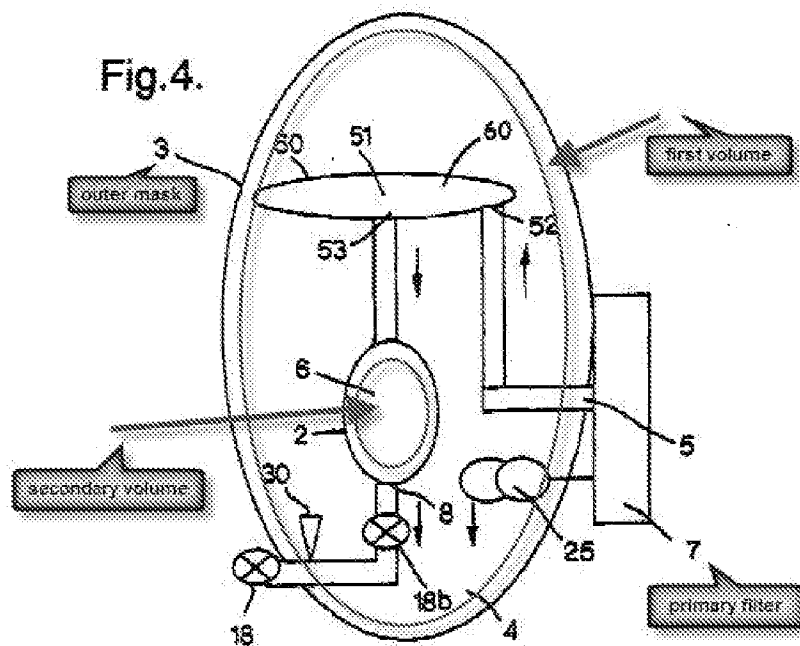
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3771

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

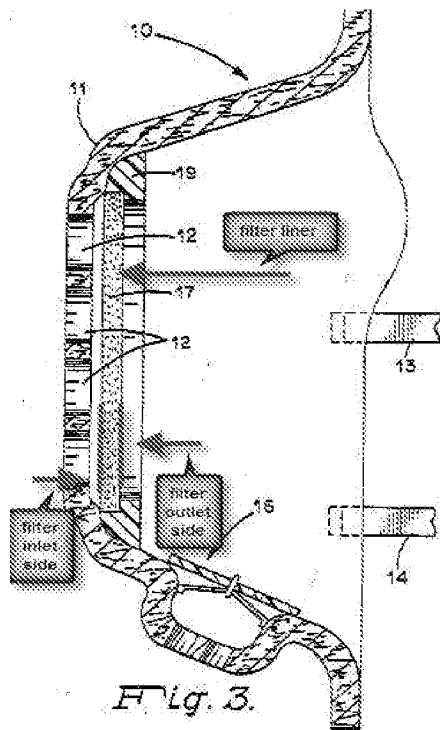
7. Claims 1-3 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson et al. (7,013,891) herein referred to as Richardson in view of Tayebi (4,945,907).

Regarding claim 1, figure 4 of Richardson discloses a respirator that covers a face of the wearer (column 3 lines 48-51) and incorporating a visor (50 - ocular mask). Figure 4 of Richardson shows a primary filter (7 - filter canister). Examiner regards Richardson discloses a primary volume (the volume excluding the secondary volume) where air can be drawn from the exterior (column 7 lines 25-26) via the primary filter (7). Examiner regards there is a secondary volume positioned to enclose the nose and mouth of the user (2 - oronasal mask) (see figure 4 below).



Richardson has a conduit connecting the visor (50) and the oronasal mask (2) but lacks a secondary filter to provide filter gas passing from the main volume to the secondary volume (see figure 4 below). However, figure 3 of Tayebi teaches a filter (17 - filter liner) can be provided to an oronasal mask (column 7 lines 31-35 and Abstract lines 1-3). Figure 3 of Tayebi shows that the filter liner (17) is provided prior to the air entering the oronasal mask to filter breathed air (Abstract lines 11-14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide Richardson's conduit with a filter liner as taught by Tayebi, since such a modification would provide purified air before the user inhales the air.

Regarding claim 2, the modified Richardson has the secondary filter (17 of Tayebi) filtering air traveling around a portion of the second volume, the secondary filter having a filter inlet for receiving air and a filter outlet for outputting air (see figure 3 of Tayebi below).



Regarding claim 3, figure 4 of Richardson discloses a primary inlet port (5 - air inlet) allowing air to be drawn into the first volume from the primary air filter (7), the primary inlet port (5) positioned on the outer mask (3).

Regarding claim 12, figure 4 of Richardson discloses an exhale valve (30 - relief valve) allowing air to travel from the secondary volume to the exterior of the outer mask (3).

Regarding claim 13, figure 4 of Richardson shows the oronasal mask (2) arranged to form a seal against a wearer's face such that the secondary volume forms a separate self contained volume (6) within the first volume when sealed against the wearer's face.

Regarding claim 14, figure 4 of Richardson shows a visor (50 – ocular mask) positioned within the first volume such that air traveling around the secondary volume passes proximate the visor (50).

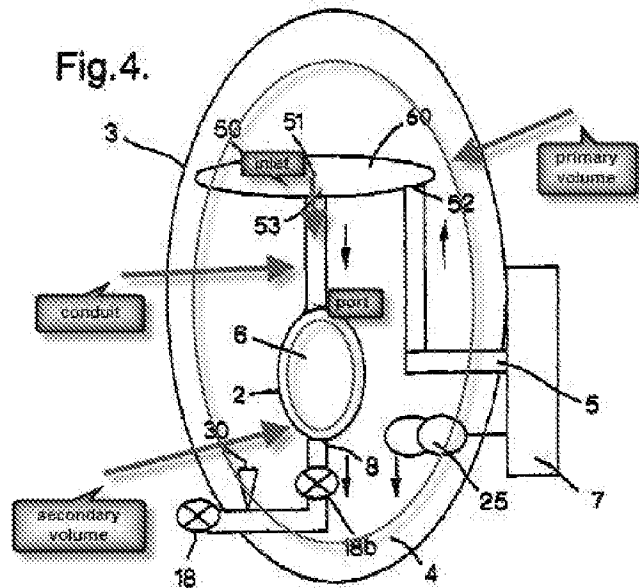
8. Claims 4, 5, and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Tayebi as applied to claims 1, 3, 6, and 7, and further in view of Keifer et al. (7,261,104).

Regarding claim 4, the modified Richardson discloses all the features/elements as claimed including an inlet port (5 - air inlet, see figure 4 of Richardson) but lacks a one way valve allowing air to travel from the primary inlet port to the first volume. However, figure 1C of Keifer et al. teaches a one way valve (480 - one way check valve) to allow inspired air through passage (460) but prevent expired air from passage (460) (column 6 lines 57-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified Richardson's air inlet with a one way valve as taught by Keifer et al. since such a modification would prevent air from escaping the inlet port and keep the air distributed within the mask. The modified Richardson has the one valve (480 of Keifer) preventing air traveling into the primary filter (7 of Richardson) from the first volume.

Regarding claim 5, the modified Richardson has the one way valve (480 of Keifer) accepting air flow from the primary filter (7 of Richardson).



Regarding claim 8, the modified Richardson has a secondary inlet (see figure 4 of Richardson below) allowing air to travel from the first volume to the secondary filter (17 of Tayebi).

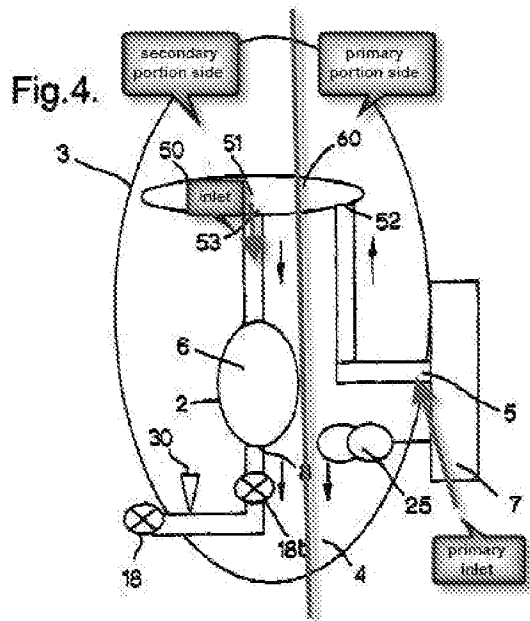


Regarding claim 9, figure 4 of Richardson has a secondary port on the oronasal mask (2), a conduit having a first portion including the secondary inlet and a second portion coupled to the secondary port (see figure 4 above).

Regarding claim 10, examiner regards figure 4 of Richardson below shows the first volume having a primary portion and a secondary portion where the primary portion is located on a different side of the oronasal mask (2) than the secondary portion, the secondary inlet being positioned within a secondary portion and distal the primary inlet

Art Unit: 3771

port, and the primary inlet port (5) being positioned proximate the primary portion.



Regarding claim 11, the modified Richardson has the secondary filter (17 of Tayebi) positioned within the conduit (see figure 4 of Richardson).

9. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Richardson and Tayebi as applied to claim 1 above, and further in view of Bee (7,089,931).

Regarding claim 6, the modified Richardson discloses all the features/elements as claimed except for another one way valve allowing air to travel into the secondary volume from the first volume. However, figure 1 of Bee teaches a one way valve (11 – non return valve) within the inlet duct (9) to the oronasal mask (column 3 lines 25-26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the modified Richardson's mask with a one way valve

placed at the inlet of the oronasal mask and within the inlet duct as taught by Bee, since such a modification would prevent air from escaping the inlet port and keep the air distributed within the oronasal mask. The modified Anderson has the one way valve (11 of Bee) preventing air from traveling into the first volume from the secondary volume (see figure 4 of Richardson).

Regarding claim 7, the modified Richardson has the one way valve (11 of Bee) accepting air traveling from the secondary filter (17 of Tayebi).

### ***Response to Arguments***

10. Applicant's arguments filed 8/25/11 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007).

Applicant argues on pg 11, paragraph 3 lines 6-8, and pg 12, paragraph 1 lines 6-8 of the remarks, that there is no reason to incorporate Tayebi's external filter liner, internally into Richardson's respirator. Examiner agrees the filter liner 18 is mounted

Art Unit: 3771

externally but in figure 3, filter liner 17 is mounted internally in the face mask 10.

Furthermore, Tayebi teaches that by using two filters, the air would be filtered twice resulting in a more purified air to be breathed by the user (Abstract lines 16-18).

Applicant argues on pg 13, paragraph 1 lines 1-3 of the remarks, that Richardson does not disclose "an oronasal mask defining a second volume, the oronasal mask is positioned within the first volume". However, examiner respectfully disagrees because figure 4 of Richardson does show an oronasal mask having a second volume and examiner considers the volume surrounding the oronasal mask as the first volume. In addition, in column 3 lines 65-66, Richardson discloses that the inner mask 2 (ornasal) is formed with an internal flexible face seal 10.

Applicant argues on pg 13, paragraph 4 lines 1-4 of the remarks, that the modified Richardson does not disclose "a secondary filter positioned within the first volume, the secondary filter filtering air traveling from the first volume to the second volume". However, examiner respectfully disagrees because the modified Richardson does have a secondary filter (filter, element 17 of Tayebi) located in the first volume that filters air traveling from the first volume to the second volume which is enclosed by the oronasal mask.

Applicant argues on pg 14, paragraph 2 lines 1-5 of the remarks, that "Tayebi's internal filter liner 17 does not filter air traveling from the first volume to the second volume". However, the modified Richardson does teach this feature because Tayebi's reference shows that two filter can be provided to a face mask to provide a better filtration of noxious gases and Richardson's reference presently has an external filter on

Art Unit: 3771

the outer mask. Therefore, by providing a second filter liner, it would have filter air traveling from the first volume to the second volume.

Applicant argues on pg 17, paragraph 2 lines 3-5 of the remarks, that "Keifer fails to teach or suggest a secondary filter positioned within the first volume, the secondary filter filtering air traveling from the first volume to the second volume" in which examiner respectfully disagrees because the modified Richardson does suggest this feature, see Office Action above. Furthermore, Keifer is used only to teach a one way valve

Applicant argues on pg 18, paragraph 2 lines 3-5 of the remarks, that "Bee fails to teach or suggest a secondary filter positioned within the first volume, the secondary filter filtering air traveling from the first volume to the second volume" in which examiner respectfully disagrees because the modified Richardson does suggest this feature, see Office Action above. Furthermore, Bee is used only to teach a one way valve within the inlet duct to the oronasal mask.

Applicant argues on pg 19, paragraph 2 lines 2-4 of the remarks, that "Richardson and Tayebi also fail to disclose a visor positioned within the first volume such that air traveling around the secondary volume passes proximate the visor" in which examiner respectfully disagrees because figure 4 of Richardson does show a visor (ocular mask) positioned within the first volume of the outer mask and air is able to travel around the secondary volume (volume in oronasal mask) and pass proximate the visor.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Booharin (2,381,568) and May et al. (5,297,544) are cited to show an oronasal mask within an outer mask. Reese et al. (5,694,925) is cited to show a visor attached to a face mask. Kikuchi et al. (4,688,567) is cited to show an attachable filtration element to an eye mask.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SI LEE whose telephone number is (571)270-5450. The examiner can normally be reached on Monday-Friday 8:30am-6pm, working alternating Friday's.

Art Unit: 3771

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571)272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SI LEE/  
Examiner, Art Unit 3771

/Justine R Yu/  
Supervisory Patent Examiner, Art Unit 3771